Serial No. 09/824,708

Amendments to the Claims

The following is a listing of all claims presently pending in the present application.

- 1. (Original) A pressure sensor comprising:
- a case having an environmental pressure introduction port;
- a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and
- a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used.
 - 2. (Previously Presented) A pressure sensor comprising:
 - a case having an environmental pressure introduction port;
- a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and
- a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used,

wherein the filter surface of the filter has a convex shape protruding to an outside of the case.

- 3. (Previously Presented) A pressure sensor comprising:
- a case having an environmental pressure introduction port;
- a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and
- a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used,

Serial N . 09/824,708

wherein the environmental pressure introduction port is composed fa plurality of opening portions that are divided by a frame.

- 4. (Original) The pressure sensor according to claim 3, wherein each of the plurality of opening portions has an elongated shape with a longitudinal direction approximately parallel to the gravitational direction.
- 5. (Original) The pressure sensor according to claim 3, wherein: the frame has a protrusion protruding outward from the case; and the filter is disposed in contact with a distal end of the protrusion to have the filter surface that is convex and to define a gap portion between the frame and the filter for conducting the environmental pressure into the case.
 - 6. (Previously Presented) A pressure sensor comprising:
 - a case having an environmental pressure introduction port;
- a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and
- a filter attached to the environmental pressure introduction port so that the environmental pressure enters the case after passing through the filter, the filter having a filter surface that is positioned along a gravitational direction when the pressure sensor is used,

wherein the environmental pressure introduction port has an opening area equal to or larger than 90 mm².

- 7. (Previously Presented) A pressure sensor comprising:
- a case having an environmental pressure introduction port;
- a sensor element unit disposed in the case for detecting a pressure based on an environmental pressure introduced into the case through the environmental pressure introduction port; and
- a filter attached to the environmental pressure introduction portion so that the environmental pressure is introduced into the case after passing through the filter, wherein:

Serial No. 09/824,708

the environmental pressure introduction port is divided into a plurality of opening portions that are covered with the filter.

- 8. (Original) The pressure sensor according to claim 7, further comprising a frame dividing the environmental pressure introduction port into the plurality of opening portions.
- 9. (Original) The pressure sensor according to claim 8, wherein: the frame has a protrusion protruding outwardly from the case; and the filter is disposed in contact with a distal end of the protrusion to provide a gap portion between the filter and the frame for introducing the environmental pressure into the case.
- 10. (Original) The pressure sensor according to claim 9, wherein:

 the environmental pressure introduction port is open in an approximately horizontal direction; and

the filter disposed in contact with the distal end of the protrusion has a filter surface that is curved and extends approximately in parallel with a vertical direction.

11. (Original) The pressure sensor according to claim 9, wherein:

the frame has first and second protrusions protruding outwardly from the case and arranged in a gravitational direction;

the first protrusion arranged at an upper side of the second protrusion has a protruding height larger than that of the second protrusion; and

the filter is disposed in contact with both first and second distal ends of the first and second protrusions to have a curved filter surface.

Serial No. 09/824,708

- 12. (Previously Presented) A pressure sensor comprising:
- a case having a measurement pressure introduction passage extending in a vertical direction for introducing a measurement pressure and an environmental pressure introduction passage extending in a horizontal direction and having an environmental pressure introduction port that is open in the horizontal direction for introducing an environmental pressure;
- a sensor element disposed in the case for detecting the measurement pressure based on the environmental pressure; and
 - a filter covering the environmental pressure introduction port.
- 13. (Previously Presented) The pressure sensor according to claim 12, wherein the filter has a filter surface extending in a direction that forms a specific angle with the vertical direction, the specific angle falling in a range of 0 to 45°.
- 14. (Original) The pressure sensor according to claim 12, wherein the filter has a convex filter surface protruding outward from the case in the horizontal direction.